

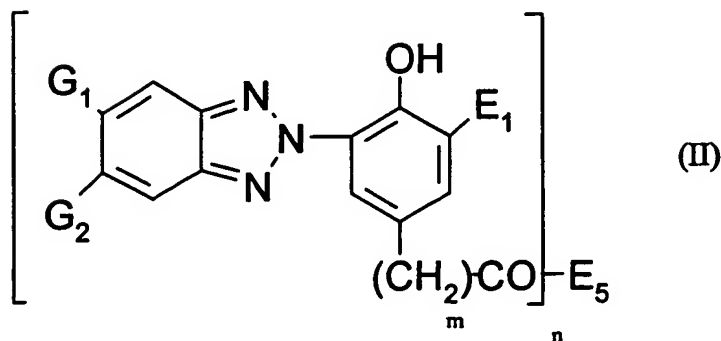
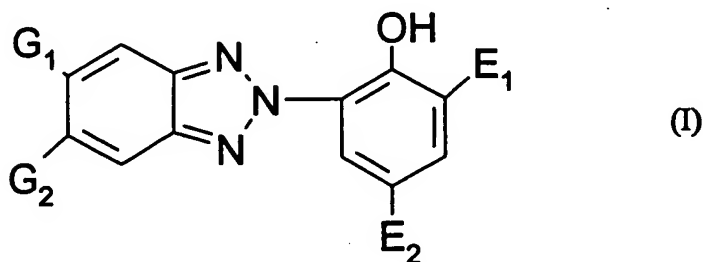
What is Claimed is:

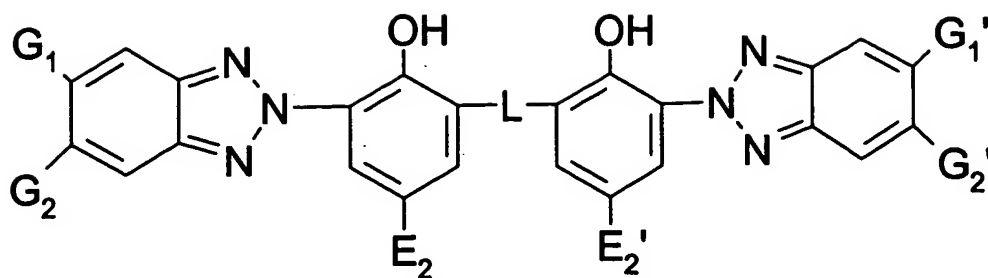
1. A plastic container or film for content storage which protects the contents therein against the deleterious effects of ultraviolet radiation which comprises

(a) a clear or lightly colored plastic, and

(b) an effective stabilizing amount of one or more compounds selected from the group consisting of durable hydroxyphenyl benzotriazole and tris-aryl-s-triazine UV absorbers.

2. A plastic container or film according to claim 1 wherein said benzotriazole UV absorbers are of formula (I), (II) or (III)





(III)

wherein

$G_1$  and  $G_1'$  are independently hydrogen or halogen,

$G_2$  and  $G_2'$  are independently halogen, nitro, cyano, perfluoroalkyl of 1 to 12 carbon atoms,  $-\text{COOG}_3$ ,  $-\text{P}(\text{O})(\text{C}_6\text{H}_5)_2$ ,  $-\text{CO-G}_3$ ,  $-\text{CO-NH-G}_3$ ,  $-\text{CO-N}(\text{G}_3)_2$ ,  $-\text{N}(\text{G}_3)-\text{CO-G}_3$ ,  $\text{E}_3\text{SO-}$  or  $\text{E}_3\text{SO}_2-$ ; or  $G_2'$  is also hydrogen,

$G_3$  is hydrogen, straight or branched chain alkyl of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 4 alkyl of 1 to 4 carbon atoms,

$E_1$  is hydrogen, straight or branched chain alkyl of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 24 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 4 alkyl of 1 to 4 carbon atoms; or  $E_1$  is alkyl of 1 to 24 carbon atoms substituted by one or two hydroxy groups,

when  $E_1$  is phenylalkyl of 7 to 15 carbon atoms or phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 4 alkyl of 1 to 4 carbon atoms,  $G_2$  may also be hydrogen,

$E_2$  and  $E_2'$  are independently straight or branched alkyl chain of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by one to three alkyl of 1 to 4 carbon atoms; or  $E_2$  and  $E_2'$  are independently said alkyl of 1 to 24 carbon atoms or said alkenyl of 2 to 18 carbon atoms substituted by one or more -OH, -OCOE<sub>11</sub>, -OE<sub>4</sub>, -NCO, -NH<sub>2</sub>, -NHCOE<sub>11</sub>, -NHE<sub>4</sub> or -N(E<sub>4</sub>)<sub>2</sub>, or mixtures thereof, where  $E_4$  is straight or branched chain alkyl of 1 to 24 carbon atoms; or said alkyl or said alkenyl interrupted by one or more -O-, -NH- or -NE<sub>4</sub>- groups or mixtures thereof and which can be unsubstituted or substituted by one or more -OH, -OE<sub>4</sub> or -NH<sub>2</sub> groups or mixtures thereof;

$n$  is 1 or 2,

when  $n$  is 1,  $E_5$  is OE<sub>6</sub> or NE<sub>7</sub>E<sub>8</sub>, or

$E_5$  is -PO(OE<sub>12</sub>)<sub>2</sub>, -OSi(E<sub>11</sub>)<sub>3</sub> or -OCO-E<sub>11</sub>,

or straight or branched chain C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-, -S- or -NE<sub>11</sub> and which can be unsubstituted or substituted by -OH or -OCO-E<sub>11</sub>, C<sub>5</sub>-C<sub>12</sub> cycloalkyl which is unsubstituted or substituted by -OH, straight chain or branched C<sub>2</sub>-C<sub>18</sub>alkenyl which is unsubstituted or substituted by -OH, C<sub>7</sub>-C<sub>15</sub>aralkyl, -CH<sub>2</sub>-CHOH-E<sub>13</sub> or glycidyl,

$E_6$  is hydrogen, straight or branched chain C<sub>1</sub>-C<sub>24</sub>alkyl which is unsubstituted or substituted by one or more OH, OE<sub>4</sub> or NH<sub>2</sub> groups, or -OE<sub>6</sub> is -(OCH<sub>2</sub>CH<sub>2</sub>)<sub>w</sub>OH or -(OCH<sub>2</sub>CH<sub>2</sub>)<sub>w</sub>OE<sub>21</sub> where  $w$  is 1 to 12 and  $E_{21}$  is alkyl of 1 to 12 carbon atoms,

$E_7$  and  $E_8$  are independently hydrogen, alkyl of 1 to 18 carbon atoms, straight or branched chain C<sub>3</sub>-C<sub>18</sub>alkyl which is interrupted by -O-, -S- or -NE<sub>11</sub>-, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>6</sub>-C<sub>14</sub>aryl or C<sub>1</sub>-C<sub>3</sub>hydroxylalkyl, or  $E_7$  and  $E_8$  together with the N atom are a pyrrolidine, piperidine, piperazine or morpholine ring,

$E_9$  is -X-(Z)<sub>p</sub>-Y-E<sub>15</sub>

wherein

X is -O- or -N(E<sub>16</sub>)-,

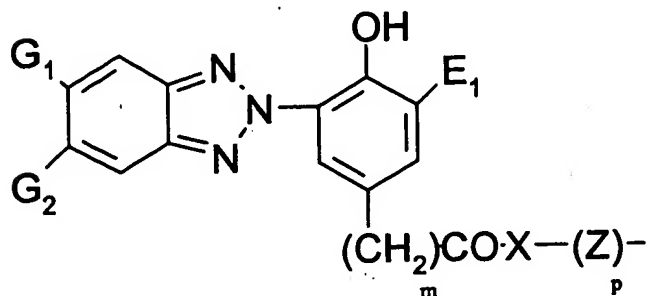
Y is -O- or -N(E<sub>17</sub>)-,

Z is C<sub>2</sub>-C<sub>12</sub>-alkylene, C<sub>4</sub>-C<sub>12</sub>-alkylene interrupted by one to three nitrogen atoms, oxygen atoms or a mixture thereof, or is C<sub>3</sub>-C<sub>12</sub>-alkylene, butenylene, butynylene, cyclohexylene or phenylene, each substituted by a hydroxyl group,

m is zero, 1 or 2,

p is 1, or p is also zero when X and Y are -N(E<sub>16</sub>)- and -N(E<sub>17</sub>)-, respectively,

E<sub>15</sub> is a group -CO-C(E<sub>18</sub>)=C(H)E<sub>19</sub> or, when Y is -N(E<sub>17</sub>)-, forms together with E<sub>17</sub> a group -CO-CH=CH-CO-, wherein E<sub>18</sub> is hydrogen or methyl, and E<sub>19</sub> is hydrogen, methyl or -CO-X-E<sub>20</sub>, wherein E<sub>20</sub> is hydrogen, C<sub>1</sub>-C<sub>12</sub>-alkyl or a group of the formula

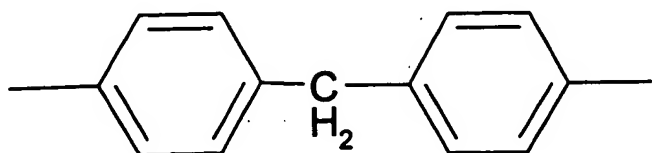


wherein the symbols E<sub>1</sub>, G<sub>2</sub>, X, Z, m and p have the meanings defined above, and E<sub>16</sub> and E<sub>17</sub> independently of one another are hydrogen, C<sub>1</sub>-C<sub>12</sub>-alkyl, C<sub>3</sub>-C<sub>12</sub>-alkyl interrupted by 1 to 3 oxygen atoms, or is cyclohexyl or C<sub>7</sub>-C<sub>15</sub>-alkyl, and E<sub>16</sub> together with E<sub>17</sub> in the case where Z is ethylene, also forms ethylene,

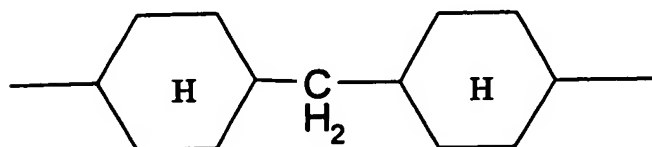
when n is 2, one of G<sub>2</sub> is also hydrogen, E<sub>5</sub> is one of divalent radicals -O-E<sub>9</sub>-O- or -N(E<sub>11</sub>)-E<sub>10</sub>-N(E<sub>11</sub>)-,

E<sub>9</sub> is C<sub>2</sub>-C<sub>8</sub>-alkylene, C<sub>4</sub>-C<sub>8</sub>-alkenylene, C<sub>4</sub>-alkynylene, cyclohexylene, straight or branched chain C<sub>4</sub>-C<sub>10</sub>-alkylene which is interrupted by -O- or by -CH<sub>2</sub>-CHOH-CH<sub>2</sub>-O-E<sub>14</sub>-O-CH<sub>2</sub>-CHOH-CH<sub>2</sub>-,

$E_{10}$  being straight or branched chain  $C_2$ - $C_{12}$ alkylene which may be interrupted by -O-, cyclohexylene, or

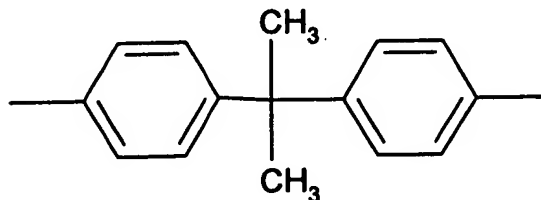


or

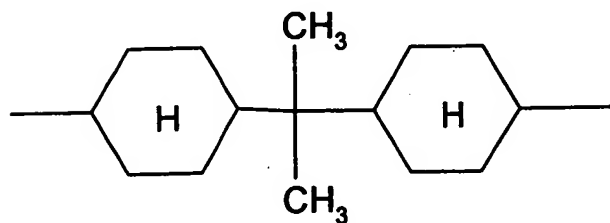


or  $E_{10}$  and  $E_{11}$  with the two nitrogen atoms form a piperazine ring,

$E_{14}$  is straight or branched chain  $C_2$ - $C_8$ alkylene, straight or branched chain  $C_4$ - $C_{10}$ alkylene which is interrupted by -O-, cycloalkylene, arylene or



or



where  $E_7$  and  $E_8$  are independently hydrogen, alkyl of 1 to 18 carbon atoms or  $E_7$  and  $E_8$  together are alkylene of 4 to 6 carbon atoms, 3-oxapentamethylene, 3-iminopentamethylene or 3-methyliminopentamethylene,

$E_{11}$  is hydrogen, straight or branched chain  $C_1$ - $C_{18}$ alkyl,  $C_5$ - $C_{12}$ cycloalkyl, straight or branched chain  $C_2$ - $C_{18}$ alkenyl,  $C_6$ - $C_{14}$ aryl or  $C_7$ - $C_{15}$ aralkyl,

$E_{12}$  is straight or branched chain  $C_1$ - $C_{18}$ alkyl, straight or branched chain  $C_3$ - $C_{18}$ alkenyl,  $C_3$ - $C_{10}$ cycloalkyl,  $C_6$ - $C_{16}$ aryl or  $C_7$ - $C_{15}$ aralkyl,

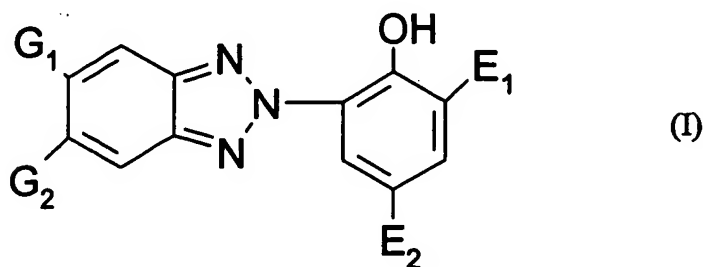
$E_{13}$  is H, straight chain or branched  $C_1$ - $C_{18}$ alkyl which is substituted by  $-PO(OE_{12})_2$ , phenyl which is unsubstituted or substituted by OH,  $C_7$ - $C_{15}$ aralkyl or  $-CH_2OE_{12}$ ,

$E_3$  is alkyl of 1 to 20 carbon atoms, hydroxyalkyl of 2 to 20 carbon atoms, alkyl substituted by alkoxycarbonyl of 2 to 9 carbon atoms, alkenyl of 3 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, aryl of 6 to 10 carbon atoms or said aryl substituted by one or two alkyl of 1 to 4 carbon atoms or 1,1,2,2-tetrahydroperfluoroalkyl where the perfluoroalkyl moiety is of 6 to 16 carbon atoms, and

L is alkylene of 1 to 12 carbon atoms, alkylidene of 2 to 12 carbon atoms, benzylidene, p-xylylene,  $\alpha,\alpha',\alpha',\alpha'$ -tetramethyl-m-xylylene or cycloalkylidene; and

with the proviso that formula (I) does not represent 5-chloro-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole, 5-chloro-2-(2-hydroxy-3-tert-butyl-5-methylphenyl)-2H-benzotriazole or 2-(2-hydroxy-3,5-di- $\alpha$ -cumyl)-2H-benzotriazole.

3. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers are of formula (I)



wherein

$G_1$  is hydrogen,

$G_2$  is hydrogen, cyano, chloro, fluoro,  $CF_3$ -,  $-CO-G_3$ ,  $E_3SO$ - or  $E_3SO_2$ -,

$G_3$  is straight or branched chain alkyl of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 4 alkyl of 1 to 4 carbon atoms,

$E_1$  is phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 4 alkyl of 1 to 4 carbon atoms,

$E_2$  is straight or branched alkyl chain of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 3 alkyl of 1 to 4 carbon atoms; or  $E_2$  is said alkyl of 1 to 24 carbon atoms or said alkenyl of 2 to 18 carbon atoms substituted by one or more  $-OH$ ,  $-OCOE_{11}$ ,  $-OE_4$ ,  $-NCO$ ,  $-NH_2$ ,  $-NHCOE_{11}$ ,  $-NHE_4$ , or  $-N(E_4)_2$ , or mixtures thereof, where  $E_4$  is straight or branched chain alkyl of 1 to 24 carbon atoms; or said alkyl or said alkenyl interrupted by one or more  $-O-$ ,  $-NH-$  or  $-NE_4-$  groups or mixtures thereof and which can be unsubstituted or substituted by one or more  $-OH$ ,  $-OE_4$  or  $-NH_2$  groups or mixtures thereof;

$E_3$  is alkyl of 1 to 20 carbon atoms, hydroxyalkyl of 2 to 20 carbon atoms, alkenyl of 3 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, aryl of 6 to 10 carbon atoms or said aryl substituted by one or two alkyl of 1 to 4 carbon atoms or 1,1,2,2-tetrahydroperfluoroalkyl where the perfluoroalkyl moiety is of 6 to 16 carbon atoms;

or is a compound of formula (I)

wherein,

$G_1$  is hydrogen,

$G_2$  is chloro, fluoro,  $CF_3$ -,  $E_3SO$ - or  $E_3SO_2$ -,

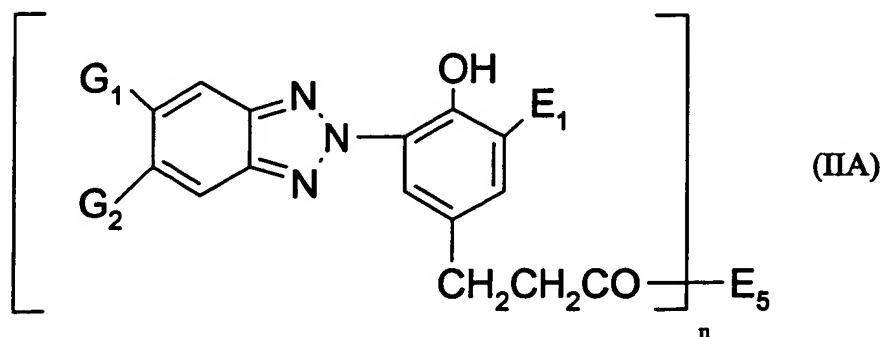
$E_1$  is hydrogen or straight or branched alkyl of 1 to 24 carbon atoms,

$E_2$  is as defined above, and

$E_3$  is straight or branched chain alkyl of 1 to 7 carbon atoms; and

with the proviso that formula (I) does not represent 5-chloro-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole, 5-chloro-2-(2-hydroxy-3-tert-butyl-5-methylphenyl)-2H-benzotriazole or 2-(2-hydroxy-3,5-di- $\alpha$ -cumyl)-2H-benzotriazole.

4. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers of formula (II) are of the formula (IIA)



wherein

$G_1$  is hydrogen,

$G_2$  is  $CF_3$ - or fluoro,

$E_1$  is hydrogen, straight or branched alkyl of 1 to 24 carbon atoms or phenylalkyl of 7 to 15 carbon atoms,

when  $E_1$  is phenylalkyl of 7 to 15 carbon atoms,  $G_2$  may also be hydrogen,

$E_5$  is  $-OE_6$  or  $-NE_7E_8$ , or

$E_5$  is

$-X-(Z)_p-Y-E_{15}$

wherein

$X$  is  $-O-$  or  $-N(E_{16})-$ ,

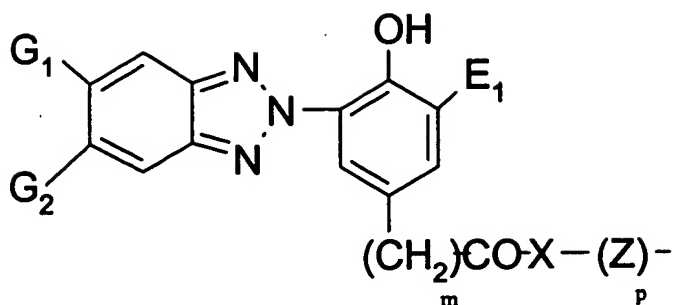
$Y$  is  $-O-$  or  $-N(E_{17})-$ ,

$Z$  is  $C_2$ - $C_{12}$ -alkylene,  $C_4$ - $C_{12}$ -alkylene interrupted by one to three nitrogen atoms, oxygen atoms or a mixture thereof, or is  $C_3$ - $C_{12}$ -alkylene, butenylene, butynylene, cyclohexylene or phenylene, each substituted by a hydroxyl group,

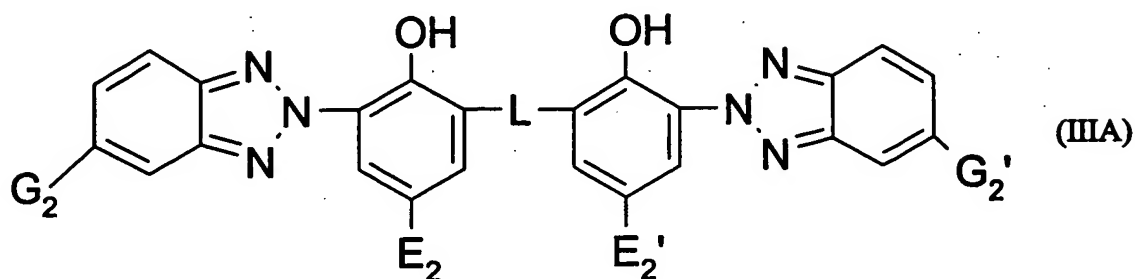
$m$  is 0, 1, 2 or 3,

$p$  is 1, or  $p$  is also zero when  $X$  and  $Y$  are  $-N(E_{16})-$  and  $-N(E_{17})-$ , respectively,

$E_{15}$  is a group  $-CO-C(E_{18})=C(H)E_{19}$ , or, when  $Y$  is  $-N(E_{17})-$ , forms together with  $E_{17}$  a group  $-CO-CH=CH-CO-$ , wherein  $E_{18}$  is hydrogen or methyl, and  $E_{19}$  is hydrogen, methyl or  $-CO-X-E_{20}$ , wherein  $E_{20}$  is hydrogen,  $C_1$ - $C_{12}$ -alkyl or a group of the formula



5. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers are of formula (III) are of the formula (IIIA)



wherein

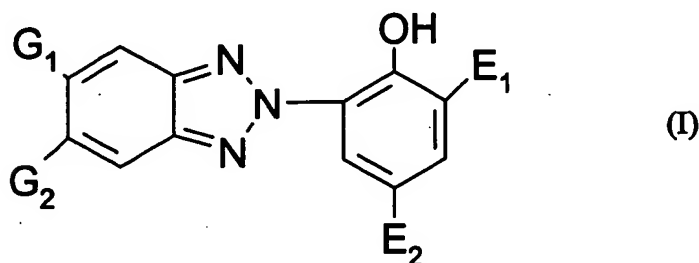
$G_2$  is  $CF_3$ ,

$G_2$  is hydrogen or  $CF_3$ ,

$E_2$  and  $E_2'$  are independently straight or branched alkyl chain of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 3 alkyl of 1 to 4 carbon atoms; and

L is alkylene of 1 to 12 carbon atoms, alkylidene of 2 to 12 carbon atoms, benzyldiene, p-xylylene,  $\alpha,\alpha,\alpha',\alpha'$ -tetramethyl-m-xylylene or cycloalkylidene.

6. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers are of formula (I)



wherein

$G_1$  is hydrogen,

$G_2$  is  $CF_3$ -,

$E_1$  is phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 4 alkyl of 1 to 4 carbon atoms,

$E_2$  is straight or branched alkyl chain of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 3 alkyl of 1 to 4 carbon atoms; or  $E_2$  is said alkyl of 1 to 24 carbon atoms or said alkenyl of 2 to 18 carbon atoms substituted by one or more -OH, - $OCOE_{11}$ , - $NH_2$  or - $NHCOE_{11}$ , or mixtures

thereof, or said alkyl or said alkenyl interrupted by one or more -O- and which can be unsubstituted or substituted by one or more -OH,

or is a compound of formula (I) wherein,

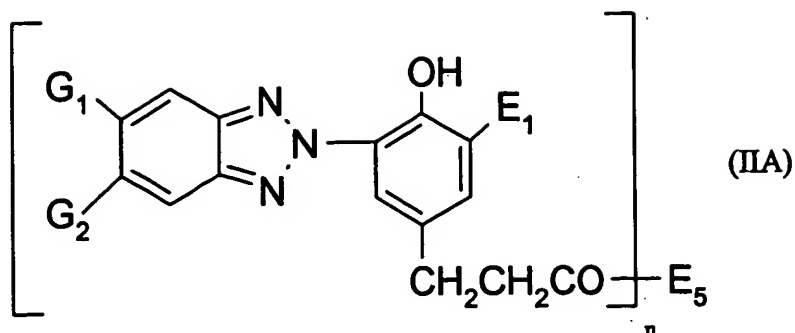
G<sub>1</sub> is hydrogen,

G<sub>2</sub> is CF<sub>3</sub>-,

E<sub>1</sub> is hydrogen, straight or branched alkyl of 4 to 24 carbon atoms or phenylalkyl of 7 to 15 carbon atoms, and

E<sub>2</sub> is straight or branched alkyl chain of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 3 alkyl of 1 to 4 carbon atoms; or E<sub>2</sub> is said alkyl of 1 to 24 carbon atoms or said alkenyl of 2 to 18 carbon atoms substituted by one or more -OH, -OCOE<sub>11</sub>, -NH<sub>2</sub> or -NHCOE<sub>11</sub>, or mixtures thereof, or said alkyl or said alkenyl interrupted by one or more -O- and which can be unsubstituted or substituted by one or more -OH.

7. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers of formula (II) are of the formula (IIA)



wherein

$G_1$  is hydrogen,

$G_2$  is  $CF_3$ -,

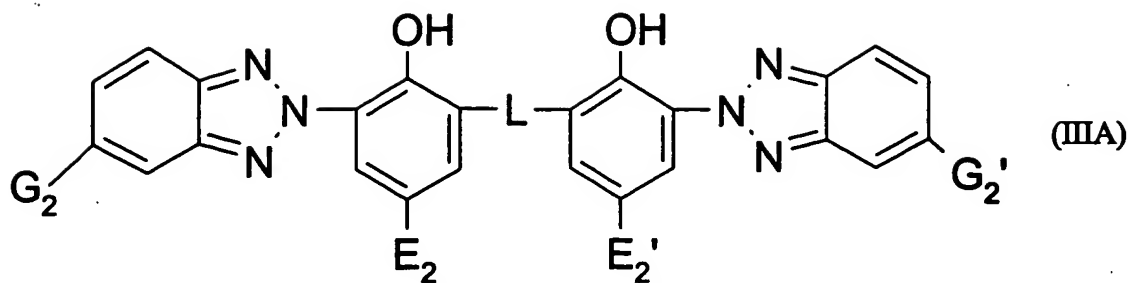
$E_1$  is hydrogen, straight or branched alkyl of 4 to 24 carbon atoms or phenylalkyl of 7 to 15 carbon atoms,

$E_5$  is  $-OE_6$  or  $-NE_7E_8$  where

$E_6$  is hydrogen, straight or branched chain  $C_1$ - $C_{24}$ alkyl which is unsubstituted or substituted by one or more OH groups, or  $-OE_6$  is  $-(OCH_2CH_2)_wOH$  or  $-(OCH_2CH_2)_wOE_{21}$  where  $w$  is 1 to 12 and  $E_{21}$  is alkyl of 1 to 12 carbon atoms, and

$E_7$  and  $E_8$  are independently hydrogen, alkyl of 1 to 18 carbon atoms, straight or branched chain  $C_3$ - $C_{18}$ alkyl which is interrupted by  $-O$ -,  $-S$ - or  $-NE_{11}$ -,  $C_5$ - $C_{12}$ cycloalkyl,  $C_6$ - $C_{14}$ aryl or  $C_1$ - $C_3$ hydroxylalkyl, or  $E_7$  and  $E_8$  together with the N atom are a pyrrolidine, piperidine, piperazine or morpholine ring.

8. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers of formula (III) are of the formula (IIIA)



wherein

$G_2$  is  $CF_3$ ,

$G_2'$  is hydrogen or  $CF_3$ ,

$E_2$  and  $E_2'$  are independently straight or branched alkyl chain of 1 to 24 carbon atoms, straight or branched chain alkenyl of 2 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, phenyl, or said phenyl or said phenylalkyl substituted on the phenyl ring by 1 to 3 alkyl of 1 to 4 carbon atoms; and

L is methylene.

9. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers are selected from the group consisting of

- (a) 5-trifluoromethyl-2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-octylphenyl)-2H-benzotriazole;
- (b) 5-trifluoromethyl-2-(2-hydroxy-5-tert-octylphenyl)-2H-benzotriazole;
- (c) 5-trifluoromethyl-2-(2-hydroxy-3,5-di-tert-octylphenyl)-2H-benzotriazole;
- (d) 2,2'-methylene-bis[6-(5-trifluoromethyl-2H-benzotriazol-2-yl)-4-tert-octylphenol];

- (e) methylene-2-[4-tert-octyl-6-(2H-benzotriazol-2-yl)phenol]2'-[4-tert-butyl-6-(5-trifluoromethyl-2H-benzotriazol-2-yl)phenol];
- (f) 3-(5-trifluoromethyl-2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyhydrocinnamic acid;
- (g) methyl 3-(5-trifluoromethyl-2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyhydrocinnamate;
- (h) isooctyl 3-(5-trifluoromethyl-2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyhydrocinnamate;
- (i) 5-trifluoromethyl-2-[2-hydroxy-5-(3-hydroxypropyl)phenyl]-2H-benzotriazole;
- (j) 5-butylsulfonyl-2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-octylphenyl)-2H-benzotriazole;
- (k) 5-octylsulfonyl-2-(2-hydroxy-3,5-di- $\alpha$ -cumylphenyl)-2H-benzotriazole;
- (l) 5-dodecylsulfonyl-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole;
- (m) 5-octylsulfonyl-2-(2-hydroxy-3,5-di-tert-octylphenyl)-2H-benzotriazole;
- (n) 5-trifluoromethyl-2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-butylphenyl)-2H-benzotriazole;
- (o) 5-trifluoromethyl-2-(2-hydroxy-3- $\alpha$ -cumyl-5-nonylphenyl)-2H-benzotriazole;
- (p) 5-trifluoromethyl-2-[2-hydroxy-3- $\alpha$ -cumyl-5-(2-hydroxyethyl)phenyl]-2H-benzotriazole;
- (q) 5-trifluoromethyl-2-[2-hydroxy-3- $\alpha$ -cumyl-5-(3-hydroxypropyl)phenyl]-2H-benzotriazole;
- (r) 5-trifluoromethyl-2-(2-hydroxy-3,5-di-tert-amylphenyl)-2H-benzotriazole;
- (s) 5-trifluoromethyl-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole;
- (t) 5-trifluoromethyl-2-(2-hydroxy-3-dodecyl-5-methylphenyl)-2H-benzotriazole;
- (u) 5-trifluoromethyl-2-[2-hydroxy-3-tert-butyl-5-(3-hydroxypropyl)phenyl]-2H-benzotriazole;
- (v) 5-trifluoromethyl-2-[2-hydroxy-3-tert-butyl-5-(2-hydroxyethyl)phenyl]-2H-benzotriazole;
- (w) 5-trifluoromethyl-2-[2-hydroxy-5-(2-hydroxyethyl)phenyl]-2H-benzotriazole;
- (x) 5-trifluoromethyl-2-(2-hydroxy-3,5-di- $\alpha$ -cumylphenyl)-2H-benzotriazole;
- (y) 5-fluoro-2-(2-hydroxy-3,5-di- $\alpha$ -cumylphenyl)-2H-benzotriazole;
- (z) 5-butylsulfonyl-2-(2-hydroxy-3,5-di- $\alpha$ -cumylphenyl)-2H-benzotriazole;

- (aa) 5-butylsulfonyl-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole;
- (bb) 5-butylsulfonyl-2-(2-hydroxy-3,5-di-tert-octylphenyl)-2H-benzotriazole;
- (cc) 5-phenylsulfonyl-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole;
- (dd) 5-chloro-2-(2-hydroxy-3,5-di- $\alpha$ -cumylphenyl)-2H-benzotriazole;
- (ee) 5-chloro-2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-octylphenyl)-2H-benzotriazole;
- (ff) isooctyl 3-(5-chloro-2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyhydrocinnamate;

and

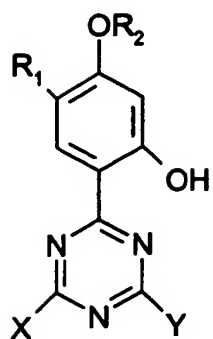
- (gg) 2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-octylphenyl)-2H-benzotriazole.

10. A plastic container or film according to claim 2 wherein said benzotriazole UV absorbers are selected from the group consisting of

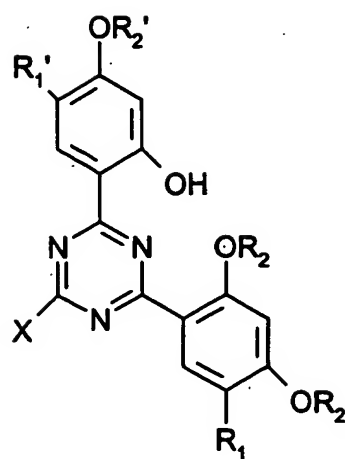
- (a) 5-trifluoromethyl-2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-octylphenyl)-2H-benzotriazole;
- (b) 5-trifluoromethyl-2-(2-hydroxy-5-tert-octylphenyl)-2H-benzotriazole;
- (c) 5-trifluoromethyl-2-(2-hydroxy-3,5-di-tert-octylphenyl)-2H-benzotriazole;
- (g) methyl 3-(5-trifluoromethyl-2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyhydrocinnamate;

- (j) 5-butylsulfonyl-2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-octylphenyl)-2H-benzotriazole;
- (n) 5-trifluoromethyl-2-(2-hydroxy-3- $\alpha$ -cumyl-5-tert-butylphenyl)-2H-benzotriazole;
- (s) 5-trifluoromethyl-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole;
- (x) 5-trifluoromethyl-2-(2-hydroxy-3,5-di- $\alpha$ -cumylphenyl)-2H-benzotriazole;
- (aa) 5-butylsulfonyl-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole; and
- (cc) 5-phenylsulfonyl-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole.

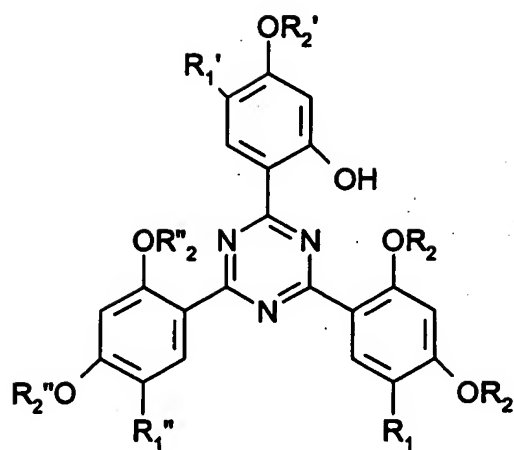
11. A plastic container or film according to claim 1 wherein said tris-aryl-s-triazine UV absorbers are of formula (IV), (V), (VI), (VII), (VIII) or (IX)



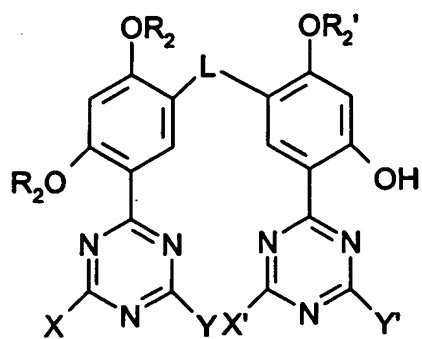
(IV)



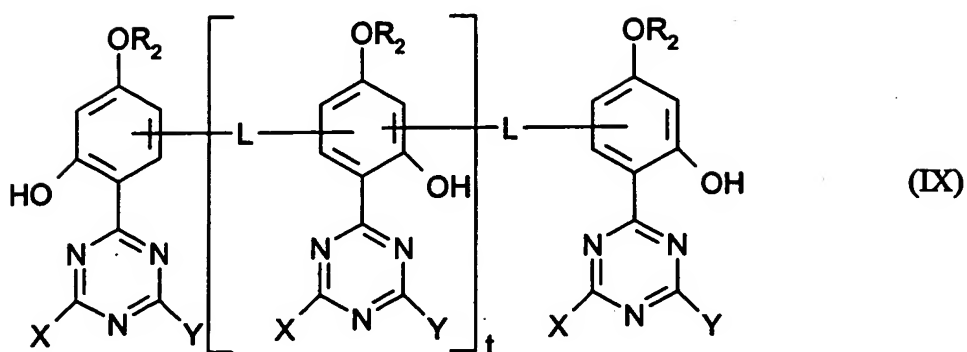
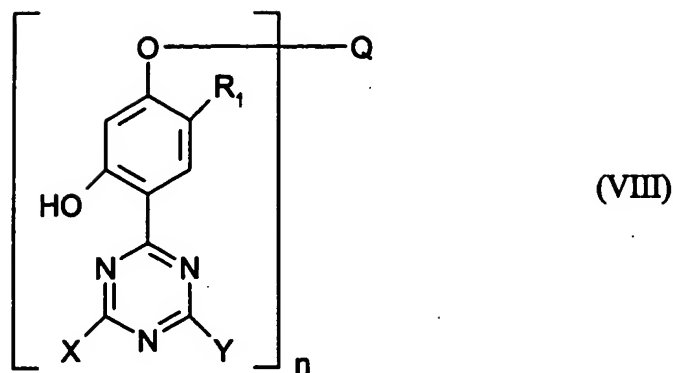
(V)



(VI)



(VII)



wherein

X and Y are independently phenyl, naphthyl, or said phenyl or said naphthyl substituted by one to three alkyl of 1 to 6 carbon atoms, by halogen, by hydroxy or by alkoxy of 1 to 6 carbon atoms or by mixtures thereof; or X and Y are independently Z<sub>1</sub> or Z<sub>2</sub>;

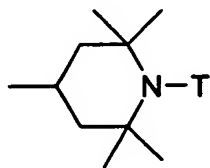
R<sub>1</sub> is hydrogen, straight or branched chain alkyl of 1 to 24 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, halogen, -SR<sub>3</sub>, -SOR<sub>3</sub> or -SO<sub>2</sub>R<sub>3</sub>; or said alkyl, said cycloalkyl or said phenylalkyl substituted by one to three halogen, -R<sub>4</sub>, -OR<sub>5</sub>, -N(R<sub>5</sub>)<sub>2</sub>, -COR<sub>5</sub>, -COOR<sub>5</sub>, -OCOR<sub>5</sub>, -CN, -NO<sub>2</sub>, -SR<sub>5</sub>, -SOR<sub>5</sub>, -SO<sub>2</sub>R<sub>5</sub> or -P(O)(OR<sub>5</sub>)<sub>2</sub>, morpholinyl, piperidinyl, 2,2,6,6-tetramethylpiperidinyl, piperazinyl or N-methylpiperidinyl groups or combinations thereof; or said alkyl or said cycloalkyl interrupted by one to four phenylene, -O-, -NR<sub>5</sub>-, -CONR<sub>5</sub>-, -COO-, -OCO- or -CO groups or combinations thereof; or said

alkyl or said cycloalkyl both substituted and interrupted by combinations of the groups mentioned above;

$R_3$  is alkyl of 1 to 20 carbon atoms, alkenyl of 3 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, aryl of 6 to 10 carbon atoms or said aryl substituted by one or two alkyl of 1 to 4 carbon atoms;

$R_4$  is aryl of 6 to 10 carbon atoms or said aryl substituted by one to three halogen, alkyl of 1 to 8 carbon atoms, alkoxy of 1 to 8 carbon atoms or combinations thereof; cycloalkyl of 5 to 12 carbon atoms; phenylalkyl of 7 to 15 carbon atoms or said phenylalkyl substituted on the phenyl ring by one to three halogen, alkyl of 1 to 8 carbon atoms, alkoxy of 1 to 8 carbon atoms or combinations thereof; or straight or branched chain alkenyl of 2 to 18 carbon atoms;

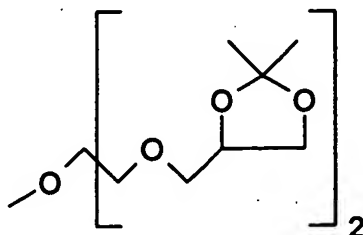
$R_5$  is defined as is  $R_4$ ; or  $R_5$  is also hydrogen or straight or branched chain alkyl of 1 to 24 carbon atoms, alkenyl of 2 to 24 carbon atoms; or  $R_5$  is a group for formula



T is hydrogen, oxyl, hydroxyl,  $-OT_1$ , alkyl of 1 to 24 carbon atoms, said alkyl substituted by one to three hydroxy; benzyl or alkanoyl of 2 to 18 carbon atoms;

$T_1$  is alkyl of 1 to 24 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, alkenyl of 2 to 24 carbon atoms, cycloalkenyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, a radical of a saturated or unsaturated bicyclic or tricyclic hydrocarbon of 7 to 12 carbon atoms or aryl of 6 to 10 carbon atoms or said aryl substituted by one to three alkyl of 1 to 4 carbon atoms;

5 to 12 carbon atoms; or said alkyl or said cycloalkyl substitute by one to four halogen, epoxy, glycidyloxy, furyloxy,  $-R_4$ ,  $-OR_5$ ,  $-N(R_5)_2$ ,  $-CON(R_5)_2$ ,  $-COR_5$ ,  $-COOR_5$ ,  $-OCOR_5$ ,  $-OCOC(R_5)=C(R_5)_2$ ,  $-C(R_5)=CCOOR_5$ ,  $-CN$ ,  $-NCO$ , or

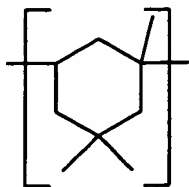


or combinations thereof; or said alkyl or said cycloalkyl interrupted by one to four epoxy, -O-, -NR<sub>5</sub>-, -CONR<sub>5</sub>-, -COO-, -OCO-, -CO-, -C(R<sub>5</sub>)=C(R<sub>5</sub>)COO-, -OCOC(R<sub>5</sub>)=C(R<sub>5</sub>)-, -C(R<sub>5</sub>)=C(R<sub>5</sub>)-, phenylene or phenylene-G-phenylene in which G is -O-, -S-, -SO<sub>2</sub>-, -CH<sub>2</sub>- or -C(CH<sub>3</sub>)<sub>2</sub>- or combinations thereof, or said alkyl or said cycloalkyl both substituted and interrupted by combinations of the groups mentioned above; or R<sub>2</sub> is -SO<sub>2</sub>R<sub>3</sub> or -COR<sub>6</sub>;

**R<sub>6</sub> is straight or branched chain alkyl of 1 to 18 carbon atoms, straight or branched chain alkenyl of 2 to 12 carbon atoms, phenoxy, alkylamino of 1 to 12 carbon atoms, arylamino of 6 to 12 carbon atoms, -R<sub>7</sub>COOH or -NH-R<sub>8</sub>-NCO;**

**R<sub>7</sub> is alkylene of 2 to 14 carbon atoms or phenylene;**

**R<sub>8</sub> is alkylene of 2 to 24 carbon atoms, phenylene, tolylene, diphenylmethane or a group**



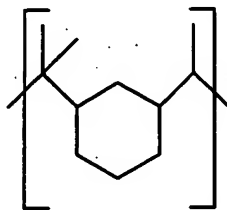
$R_1'$  and  $R_1''$  are the same or different and are as defined for  $R_1$ ;

$R_2'$  and  $R_2''$  are the same or different and are as defined for  $R_2$ ;

$X$ ,  $X'$ ,  $Y$  and  $Y'$  are the same or different and are as defined for  $X$  and  $Y$ ;

$t$  is 0 to 9;

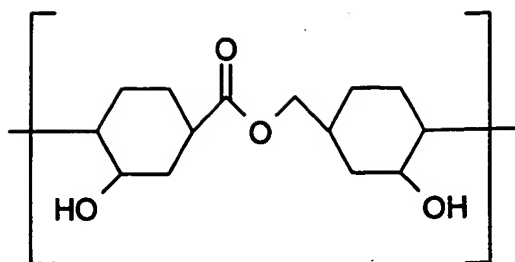
$L$  is straight or branched alkylene of 1 to 12 carbon atoms, cycloalkylene of 5 to 12 carbon atoms or alkylene substituted or interrupted by cyclohexylene or phenylene; or  $L$  is benzylidene; or  $L$  is  $-S-$ ,  $-S-S-$ ,  $-S-E-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-SO-E-SO-$ ,  $-SO_2-E-SO_2-$ ,  $-CH_2-NH-E-NH-CH_2-$  or



$E$  is alkylene of 2 to 12 carbon atoms, cycloalkylene of 5 to 12 carbon atoms or alkylene interrupted or terminated by cycloalkylene of 5 to 12 carbon atoms;

$n$  is 2, 3 or 4;

when  $n$  is 2;  $Q$  is straight or branched alkylene of 2 to 16 carbon atoms; or said alkylene substituted by one to three hydroxy groups; or said alkylene interrupted by one to three  $-CH=CH-$  or  $-O-$ ; or said alkylene both substituted and interrupted by combinations of the groups mentioned above; or  $Q$  is xylylene or a group  $-CONH-R_8-NHCO-$ ,  $-CH_2CH(OH)CH_2O-R_9-OCH_2CH(OH)CH_2-$ ,  $-CO-R_{10}-CO-$ , or  $-(CH_2)_m-COO-R_{11}-OOC-(CH_2)_m-$ , where  $m$  is 1 to 3; or  $Q$  is



$R_9$  is alkylene of 2 to 50 carbon atoms; or said alkylene interrupted by one to ten -O-, phenylene or a group -phenylene-G-phenylene in which G is -O-, -S-, -SO<sub>2</sub>-, -CH<sub>2</sub>- or -C(CH<sub>3</sub>)<sub>2</sub>-;

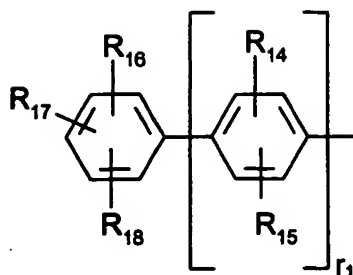
$R_{10}$  is alkylene of 2 to 10 carbon atoms, or said alkylene interrupted by one to four -O-, -S- or -CH=CH-; or  $R_{10}$  is arylene of 6 to 12 carbon atoms;

$R_{11}$  is alkylene of 2 to 20 carbon atoms or said alkylene interrupted by one to eight -O-;

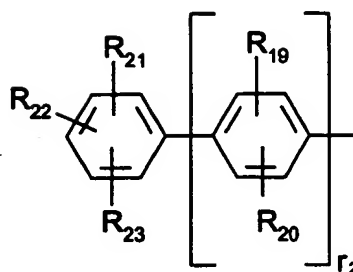
when n is 3, Q is a group -[(CH<sub>2</sub>)<sub>m</sub>COO]<sub>3</sub>-R<sub>12</sub> where m is 1 to 3, and R<sub>12</sub> is an alkanetriyl of 3 to 12 carbon atoms;

when n is 4, Q is a group -[(CH<sub>2</sub>)<sub>m</sub>COO]<sub>4</sub>-R<sub>13</sub> where m is 1 to 3, and R<sub>14</sub> is an alkanetetrayl of 4 to 12 carbon atoms;

Z<sub>1</sub> is a group of formula



$Z_2$  is a group of formula



where

$r_1$  and  $r_2$  are independently of each other 0 or 1;

$R_{14}$ ,  $R_{15}$ ,  $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{19}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{22}$  and  $R_{23}$  are independently of one another hydrogen, hydroxy, cyano, alkyl of 1 to 20 carbon atoms, alkoxy of 1 to 20 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, cycloalkoxy of 5 to 12 carbon atoms, halogen, haloalkyl of 1 to 5 carbon atoms, sulfo, carboxy, acylamino of 2 to 12 carbon atoms, acyloxy of 2 to 12 carbon atoms, alkoxycarbonyl of 2 to 12 carbon atoms or aminocarbonyl; or  $R_{17}$  and  $R_{18}$  or  $R_{22}$  and  $R_{23}$  together with the phenyl radical to which they are attached are a cyclic radical interrupted by one to three -O- or -NR<sub>3</sub>-;

with the proviso that the compound of formula (IV) is not 4,6-diphenyl-2-(4-hexyloxy-2-hydroxyphenyl)-s-triazine.

12. A plastic container or film according to claim 11 wherein said tris-aryl-s-triazine UV absorbers are of the formula (IV)

where X and Y are the same or different and are phenyl or said phenyl substituted by one to three alkyl of 1 to 6 carbon atoms, halogen, hydroxy or alkoxy of 1 to 12 carbon atoms; or X and Y are Z<sub>1</sub> or Z<sub>2</sub>;

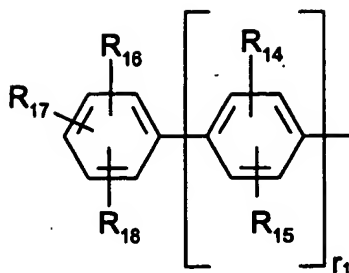
R<sub>1</sub> is hydrogen, straight or branched chain alkyl of 1 to 24 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms or halogen;

R<sub>2</sub> is hydrogen, straight or branched chain alkyl of 1 to 24 carbon atoms or cycloalkyl of 5 to 12 carbon atoms; or said alkyl or said cycloalkyl substituted by one to three -R<sub>4</sub>, -OR<sub>3</sub>, -COOR<sub>3</sub>, -OCOR<sub>3</sub> or combinations thereof; or said alkyl or cycloalkyl interrupted by one to three epoxy, -O-, -COO-, -OCO- or -CO-;

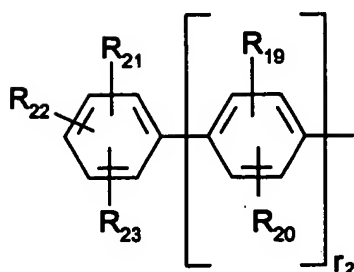
R<sub>4</sub> is aryl of 6 to 10 carbon atoms or said aryl substituted by one to three halogen, alkyl of 1 to 8 carbon atoms, alkoxy of 1 to 8 carbon atoms or combinations thereof; cycloalkyl of 5 to 12 carbon atoms; phenylalkyl of 7 to 15 carbon atoms or said phenylalkyl substituted on the phenyl ring by one to three halogen, alkyl of 1 to 8 carbon atoms, alkoxy of 1 to 8 carbon atoms or combinations thereof;

R<sub>5</sub> is defined as is R<sub>4</sub>; or R<sub>5</sub> is also hydrogen or straight or branched chain alkyl of 1 to 24 carbon atoms;

Z<sub>1</sub> is a group of formula



$Z_2$  is a group of formula



where  $r_1$  and  $r_2$  are each 1; and

$R_{14}$ ,  $R_{15}$ ,  $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{19}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{22}$  and  $R_{23}$  are independently of one another hydrogen, hydroxy, cyano, alkyl of 1 to 20 carbon atoms, alkoxy of 1 to 20 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, cycloalkoxy of 5 to 12 carbon atoms, halogen, haloalkyl of 1 to 5 carbon atoms, sulfo, carboxy, acylamino of 2 to 12 carbon atoms, acyloxy of 2 to 12 carbon atoms, or alkoxycarbonyl of 2 to 12 carbon atoms or aminocarbonyl;

with the proviso that the compound of formula (IV) is not 4,6-diphenyl-2-(4-hexyloxy-2-hydroxyphenyl)-s-triazine.

13. A plastic container or film according to claim 11 wherein said tris-aryl-s-triazine UV absorbers are of the formula (V)

wherein

X is phenyl, naphthyl or said phenyl or said naphthyl substituted by one to three alkyl of 1 to 6 carbon atoms, by halogen, by hydroxy or by alkoxy of 1 to 6 carbon atoms or by mixtures thereof; or X is Z<sub>1</sub>.

14. A plastic container or film according to claim 11 wherein said tris-aryl-s-triazine UV absorbers are of the formula (VI) or (VII) or (VIII).

15. A plastic container or film according to claim 11 wherein said tris-aryl-s-triazine UV absorbers are of the formula (IX)

wherein

X and Y are independently phenyl or said phenyl substituted by one to three alkyl of 1 to 6 carbon atoms, by halogen, by hydroxy or by alkoxy of 1 to 6 carbon atoms or by mixtures thereof; or X and Y are independently Z<sub>1</sub> or Z<sub>2</sub>; and

L is straight or branched alkylene of 1 to 12 carbon atoms, cycloalkylene of 5 to 12 carbon atoms or alkylene substituted or interrupted by cyclohexylene or phenylene.

16. A plastic container or film according to claim 11 wherein said tris-aryl-s-triazine UV absorbers are of the formula (IV)

wherein

X and Y are the same or different and are phenyl or said phenyl substituted by one to three alkyl of 1 to 6 carbon atoms; Z<sub>1</sub> or Z<sub>2</sub>;

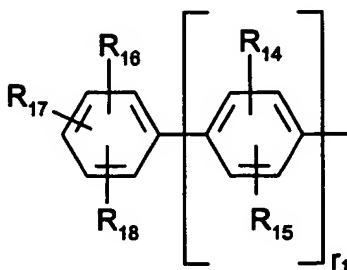
R<sub>1</sub> is hydrogen or phenylalkyl of 7 to 15 carbon atoms;

R<sub>2</sub> is hydrogen, straight or branched chain alkyl of 1 to 18 carbon atoms; or said alkyl substituted by one to three -R<sub>4</sub>, -OR<sub>3</sub> or mixtures thereof; or said alkyl interrupted by one to eight -O- or -COO-;

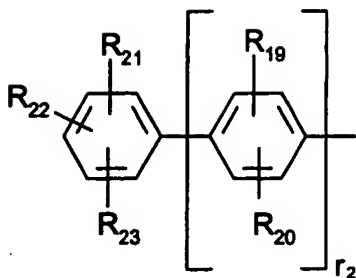
R<sub>4</sub> is aryl of 6 to 10 carbon atoms;

R<sub>3</sub> is hydrogen;

Z<sub>1</sub> is a group of formula



Z<sub>2</sub> is a group of formula



where

$r_1$  and  $r_2$  are each 1; and

$R_{14}$ ,  $R_{15}$ ,  $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{19}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{22}$  and  $R_{23}$  are each hydrogen;

with the proviso that the compound of formula (IV) is not 4,6-diphenyl-2-(4-hexyloxy-2-hydroxyphenyl)-s-triazine.

17. A plastic container or film according to claim 11 wherein said tris-aryl-s-triazine UV absorbers are of the formula

(1) 2,4-bis(4-biphenyl)-6-(2-hydroxy-4-octyloxycarbonylethylideneoxyphenyl)-s-triazine;

(2) 2-phenyl-4-[2-hydroxy-4-(3-sec-butyloxy-2-hydroxypropyloxy)phenyl]-6-[2-hydroxy-4-(3-sec-amtyloxy-2-hydroxypropyloxy)phenyl]-s-triazine;

(3) 2,4-bis(2,4-dimethylphenyl)-6-[2-hydroxy-4-(3-benzyloxy-2-hydroxypropyloxy)-phenyl]-s-triazine;

(4) 2,4-bis(2-hydroxy-4-n-butyloxyphenyl)-6-(2,4-di-n-butyloxyphenyl)-s-triazine;

(5) 2,4-bis(2,4-dimethylphenyl)-6-[2-hydroxy-4-(3-nonyloxy\*-2-hydroxypropyloxy)-5- $\alpha$ -cumylphenyl]-s-triazine; (\* denotes a mixture of octyloxy, nonyloxy and decyloxy groups)

(6) methylenebis-{2,4-bis(2,4-dimethylphenyl)-6-[2-hydroxy-4-(3-butyloxy-2-hydroxypropoxy)phenyl]-s-triazine}, methylene bridged dimer mixture bridged in the 3:5', 5:5' and 3:3' positions in a 5:4:1 ratio;

(7) 2,4,6-tris(2-hydroxy-4-isooctyloxycarbonylisopropylideneoxyphenyl)-s-triazine;

(8) 2,4-bis(2,4-dimethylphenyl)-6-(2-hydroxy-4-hexyloxy-5- $\alpha$ -cumylphenyl)-s-triazine;

(9) 2,4-bis(2,4-dimethylphenyl)-6-(2-hydroxy-4-octyloxyphenyl)-s-triazine;

(10) 2-(2,4,6-trimethylphenyl)-4,6-bis[2-hydroxy-4-(3-butyloxy-2-hydroxypropyloxy)-phenyl]-s-triazine; or

(11) 2,4,6-tris[2-hydroxy-4-(3-sec-butyloxy-2-hydroxypropyloxy)phenyl]-s-triazine.

18. A plastic container or film according to claim 11 wherein said tris-aryl-s-triazine UV absorbers are of the formula

(1) 2,4-bis(4-biphenyl)-6-(2-hydroxy-4-octyloxycarbonylethylideneoxyphenyl)-s-triazine;

(5) 2,4-bis(2,4-dimethylphenyl)-6-[2-hydroxy-4-(3-nonyloxy\*-2-hydroxypropyloxy)-5- $\alpha$ -cumylphenyl]-s-triazine; (\* denotes a mixture of octyloxy, nonyloxy and decyloxy groups) or

(7) 2,4,6-tris(2-hydroxy-4-isooctyloxycarbonylisopropylideneoxyphenyl)-s-triazine.

19. A plastic container or film according to claim 1 which comprises at least one hydroxyphenyl benzotriazole and at least one tris-aryl-s-triazine or a mixture of two or more hydroxyphenyl benzotriazoles or two or more tris-aryl-s-triazines.

20. A plastic container or film according to claim 1 which additionally comprises at least one UV absorber selected from the group consisting of 2-(2-hydroxy-3,5-di- $\alpha$ -cumyl)-2H-benzotriazole, 5-chloro-2-(2-hydroxy-3-tert-butyl-5-methylphenyl)-2H-benzotriazole, 5-chloro-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole and 4,6-diphenyl-2-(4-hexyloxy-2-hydroxyphenyl)-s-triazine.

21. A plastic container or film according to claim 1 in which said contents are selected from the group consisting of fruit juices, soft drinks, beer, wines, meats, vegetables, food products, dairy products, personal care products, cosmetics, shampoos, vitamins, pharmaceuticals, inks, dyes and pigments.

22. A plastic container or film according to claim 1 which is a rigid or flexible mono- or multi-layered packaging material

wherein each layer is comprised of one or more polymers selected from the group consisting of polyesters, polyolefins, polyolefin copolymers, ethylene-vinyl acetate, polystyrene, poly(vinyl chloride), poly(vinylidene chloride), polyamides, cellulose, polycarbonates, ethylene-vinyl alcohol, poly(vinyl alcohol), poly(vinyl alcohol) copolymers, styrene-acrylonitrile, ionomers, partially hydrolyzed poly(vinyl acetate), poly(ethylene-co-vinyl alcohol), polyvinylidene chloride, polyurethanes, PVDC and epoxies.

**23. A plastic container or film according to claim 22 in which at least one layer is comprised of a polymer selected from the group consisting of poly(ethylene terephthalate), polyethylene and polypropylene.**

**24. A packaging material according to claim 22 wherein the UV absorbers of component (b) are incorporated into a coating applied to the outer surface of the packaging material.**

**25. A plastic container or film according to claim 1 in which the UV absorbers of component (b) are present from about 0.1 to about 20 % by weight based on the weight of the plastic container or film.**

**26. A plastic container or film according to claim 1 which additionally comprises at least one coadditive selected from the group consisting of antioxidants, other UV absorbers, hindered amines, phosphites or phosphonites, hydroxylamines, nitrones, benzofuran-2-ones, thio-synergists, polyamide stabilizers, metal stearates, nucleating agents, fillers, reinforcing agents, lubricants, emulsifiers, dyes, pigments, optical brighteners, flame retardants, antistatic agents and blowing agents.**

**DECLARATION AND POWER OF ATTORNEY FOR U.S. PATENT APPLICATIONS**

☒ Original      ☐ Supplemental      ☐ Substitute      ☐ PCT

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if more than one name is listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**METHOD OF CONTENT PROTECTION WITH DURABLE UV ABSORBERS**

which is described and claimed in:

- ☒ the attached specification.
- ☐ the specification in U.S. application No. \_\_\_\_\_  
filed \_\_\_\_\_, and as amended on \_\_\_\_\_ (if applicable).  
(month/day/year) (month/day/year)
- ☐ the specification in International Application No. PCT/ \_\_\_\_\_,  
filed \_\_\_\_\_, assigned U.S. Application No. \_\_\_\_\_ (if applicable), and as amended  
(month/day/year)
  - ☐ under PCT Article 19 on \_\_\_\_\_ (if applicable)  
(month/day/year)
  - ☐ under PCT Article 34 on \_\_\_\_\_ (if applicable)  
(month/day/year)
  - ☐ and further amended on \_\_\_\_\_ (if applicable)  
(month/day/year)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information which is known by me to be material to the patentability of this application as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119 (a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America relating to this subject matter having a filing date before that of the application on which priority is claimed:

COUNTRY/REGION (OR PCT)	APPLICATION NO.	FILING DATE (month/day/year)	PRIORITY CLAIMED	
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No

I hereby claim the benefit under 35 USC § 119(e) of any United States provisional application(s) listed below:

APPLICATION NO.	FILING DATE (month/day/year)
60/179,567	February 1, 2000
_____	_____
_____	_____

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or PCT international application(s) designating the United States listed below and, insofar as the application discloses and claims subject matter in addition to that disclosed in the prior copending application, I acknowledge the duty to disclose all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56 which became available between the

filing date of the prior application and the national or PCT international filing date of this application:

U.S. APPLICATION NO.	FILING DATE (month/day/year)	STATUS		
_____	_____	<input type="checkbox"/> Patented	<input type="checkbox"/> Pending	<input type="checkbox"/> Abandoned
_____	_____	<input type="checkbox"/> Patented	<input type="checkbox"/> Pending	<input type="checkbox"/> Abandoned
_____	_____	<input type="checkbox"/> Patented	<input type="checkbox"/> Pending	<input type="checkbox"/> Abandoned

PCT APPLICATION NO.	INTERNATIONAL FILING DATE (month/day/year)	U.S. APPLICATION NO. (if any)	STATUS
_____	_____	_____	<input type="checkbox"/> Patented
			<input type="checkbox"/> Pending
			<input type="checkbox"/> Abandoned

I hereby appoint the following attorneys and agents, associated with Customer No. 000324, each of them with full power of substitution, revocation and appointment of associates, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are

punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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